

## CLAIMS

1. A method of enhancing the quality and efficiency of the clinician-patient encounter, the method dependent upon differentiation of two types of data resulting from the clinician-patient encounter, the method comprising:

obtaining descriptive data to enable a clinician to determine a diagnosis;

determining a diagnosis;

entering the diagnosis into an electronic system wherein entry of the descriptive data in an electronic format is not a prerequisite for entering a diagnosis;

automatically determining a proposed plan of action consistent with the diagnosis, the proposed plan of action including one or more elements;

electronically displaying the proposed plan of action composed of functional data;

if the proposed plan of action is acceptable to the clinician, accepting the plan of action;

and

if the proposed plan of action is not acceptable to the clinician, altering or adding to the one or more elements until in order to make them acceptable for the care of a specific patient,

wherein the method differentiates between descriptive data and functional data, the descriptive data regarding the patient's history, symptoms and physical examination findings being used by the clinician to form the diagnosis, but only function data being required to be entered into the electronic system to determine a plan of action.

2. The method of claim 1 further comprising automatically initiating one or more of the action plan elements.

3. The method of claim 1 in which entering the diagnosis into the electronic system includes:

entering a colloquial diagnosis into the electronic system;

determining from the colloquial diagnosis a formal diagnosis; and

associating the formal diagnosis with said colloquial diagnosis for future use.

4. The method of claim 1 wherein selecting one or more elements of the plan of action

in which altering or adding to the one or more elements until in order to make them acceptable for the care of a specific patient includes:

automatically determining whether each the altered or added action plan element is authorized for the entered diagnosis by a payor or other authority; and

if the care plan element is not authorized by the payor for the entered diagnosis, automatically suggesting one or more alternative diagnoses for which the care plan element is authorized, thereby allowing a clinician to converge between a diagnosis and plan of action.

5. A system enhancing the quality and efficiency of the clinician-patient encounter, comprising:

an output device for displaying to a clinician, health-related information, including diagnostic and care plan information;

an input device for entering diagnostic and care plan information;

a memory for storing a computer program;

a processor for executing the computer program, the computer program enhancing the quality and efficiency the clinician-patient encounter by:

accepting from the clinician a diagnosis entered through the input device;

automatically displaying care plan elements consistent with the diagnosis, the care plan elements being arranged in a specific order designated by the clinician and/or an authority;

accepting from the clinician a selection of one or more alternate or additional care plan elements; and

following review and acceptance by the clinician and/or authoritative electronic systems, automatically initiating at least one aspect of the selected care plan elements.

6. The system of claim 5 in which care plan elements are displayed in an order determined by the frequency of previous selections by the clinician, an order predefined by the clinician, or an order in accordance with a selected medical authority.

7. The system of claim 5 in which the program adaptively modifies the order of care plan options to reflect choices made by the clinician.

8. The system of claim 5 in which accepting from the clinician a selection of one or more care plan elements includes accepting the selection of one or more of the displayed care plan elements.

9. The system of claim 5 in which accepting from the clinician a selection of one or more care plan elements includes selecting a revised or additional care plan element or accepting a care plan element that is entered by the clinician and that is not one of the displayed care plan elements.

10. The system of claim 9 in which the program further determines whether each entered care plan element is supported by a payor for the entered diagnosis and, if not, displays for selection by the clinician at least one alternative diagnosis for which the payor will support the care plan element(s).

11. The system of claim 5 in which the input device and the output device are positioned on a handheld computer.

12. The system of claim 11 in which the handheld computer includes a wireless communications link to a computer network.

13. The system of claim 12 in which the handheld computer further includes a microphone for verbally inputting patient descriptive data, the verbally input data being transmitted over the wireless communications link to a computer network for transcription or storage.

14. The system of claim 1 in which the transcribed verbally input data is downloaded to the handheld computing device for review by the clinician.

15. The system of claim 5 in which the program supports one or more applications programming interfaces for communicating with other health-care related programs.

16. The system of claim 5 in which the program communicates with databases accessible through a computer network, thereby permitting the program to recall information from the

databases and display the information on the output device.

17. The system of claim 16 in which the database include a medical records database, a payor formulary database and other medical and patient information databases.

18. The system of claim 16 in which the program automatically initiates at least one aspect of the selected care plan by communicating with healthcare service provider programs.

19. The system of claim 18 in which the service provider program includes one or more pharmacy programs or medical laboratory programs.

20. The system of claim 5 in which the program includes instructions for initiating a page for a clinician's assistant or coworker.

21. The system of claim 16 in which the program causes the display to display patient-related health information upon request of the clinician.

22. The system of claim 16 in which the program allows entry of vital sign or other measured patient data manually or via electronic interface into the system.

23. The system of claim 16 in which the program causes the display to display the patient's vital signs upon request of the clinician.

24. The system of claim 5 in which the display displays advertisements for products or services related to the patient care details as selected by the clinician.

25. The system of claim 24 in which the advertisements are determined by the user's professional practice, specialty, location and/or personal interests.

26. The system of claim 25 in which the advertisements are further determined in a context-based manner based on interaction of the clinician with the system

27. A method for providing guidance to a clinician for determining a diagnosis and selecting treatments based on authoritative guidelines without constraining the independent

practice of medicine by the clinician, comprising:

- determining a patient's symptoms;
- entering a working diagnosis into an electronic device in data communications with a database associating payor authorized diagnostic and treatment procedures with diagnoses;
- automatically generating from the information in the database a diagnostic and treatment procedure action list corresponding to the working diagnosis; and
- selecting one or more treatments from the list or entering a treatment not on the list.

28. The method of claim 27 further comprising determining whether an entered treatment is approved by the payor for the working diagnosis and, if the entered diagnosis is not approved, automatically generating a list of one or more related diagnoses for which the selected treatment is approved and permitting selection of a working diagnosis consistent with the patient's manifestations and authorization by a payor.

29. The method of claim 27 in which:

- entering a working diagnosis into a portable electronic device includes transmitting the tentative working diagnosis over a communications link to a computer network; and
- automatically generating one or more treatment lists from the information in the database includes automatically generating diagnostic procedure and treatment lists from information stored in a database connected to the computer network and located apart from the portable electronic device.

30. The method of claim 27 in which:

- entering a working diagnosis includes entering a colloquial diagnosis used by the clinician and further comprising converting the colloquial diagnosis to a formal diagnosis and automatically generating a diagnostic treatment procedure corresponding to the formal diagnosis; and

automatically generating a diagnostic and treatment list includes generating a diagnostic and treatment list corresponding to the formal diagnosis, thereby allowing the clinician to use his or her preferred colloquial diagnosis while generating the treatment list based on a formal

diagnosis.

31. The method of claim 27 in which automatically generating a list in order of preference of treatments includes ordering the list of treatments in accordance with frequency of selection by the clinician, clinician's predefined choices, or payor recommended treatment for the diagnosis.

32. The method of claim 27 further comprising dictating into an audio recorder patient description information.

33. The method of claim 32 further comprising electronically converting the recorded patient description information into text using a voice recognition program.

34. The method of claim 33 further comprising transmitting the recorded patient description information over a communications link to a network computer for converting the recorded patient description information.

35. The method of claim 33 further comprising manually verifying and correcting as necessary the automatic transcription by authorized medical transcriptionists or the clinician.

36. The method of claim 27 further comprising communicating with a patient medical records database to provide patient history.

37. The method of claim 27 further comprising retrieving and displaying patient vital signs.

38. The method of claim 27 in which a selected treatment includes a medication and further comprising indicating to the clinician if the prescribed medication is contraindicated.

39. A system for the collecting, integrating, and communicating information related to providing health care, the system linking the clinician with medical records, payor guidelines, reference information, and service providers, comprising:

an office computer in data communications with one or more computer networks;

a handheld or other portable computing device including an input device and a display device for use by a clinician during a patient encounter, the handheld portable computing device in data communication with the computer network;

a memory in data communication with the handheld computing device and storing a program that assists the Encounter by:

retrieving patient history information from a database accessible from one of the one or more computer networks and causing the patient history to be displayed on the handheld portable computing device;

prompting the clinician to input a diagnosis,

displaying treatment options consistent with the diagnosis, the treatment options being arranged in an order of preference corresponding to the likelihood of selection by the clinician;

selecting a treatment; and

communicating over the computer network to initiate at least a part of the treatment by a health care provider.

40. The method of claim 39 in which selecting a treatment includes prescribing a medication and in which communicating over the computer network to initiate at least a part of the treatment includes transmitting a prescription to a pharmacy service

41. The method of claim 39 further comprising:

accepting a colloquial diagnosis in the clinician's preferred nomenclature; and

associating with the colloquial diagnosis a formal diagnosis consistent with standardized nomenclature; and in which

displaying treatment options consistent with the diagnosis includes displaying treatment options consistent with the formal diagnosis.

42. The method of claim 39 in which the program communicates over the computer network to effectuate the treatment by a health care provider includes transmitting formal requests, orders and associated labels, forms and/or form data for laboratory, radiology, therapy

and other healthcare tests, procedures and treatments to laboratories, departments, facilities or individuals.

43. The system of claim 39 in which the program;  
receives a treatment selected by the clinician; and  
notifying the user and displaying alternative diagnoses acceptable to pertinent authorities if the treatment selected by the clinician is not justified by the diagnosis (in the rules used by said authorities).

44. A method of increasing the efficiency of the clinician-patient provision of medical service, comprising:

presenting to a clinician a list of diagnoses;  
selecting a diagnosis;  
presenting to the clinician a list of actions consistent with the diagnosis;  
selecting one or more actions from the list of actions; and  
automatically implementing at least one action from the list.

45. A method for assisting a clinician in efficiently and accurately converging to a final diagnosis from a working diagnosis in consideration of a payor or other authority's acceptable guidelines, the method using a graphical user interface that:

presents working diagnoses for selection by a clinician;  
selecting a working diagnosis;  
displaying for selection by a clinician of a list of one or more Care Plan elements corresponding to the working diagnosis, the care plan elements being determined from payor or other authority's acceptable guideline;  
selecting one or more care plan elements from the list or entering a care plan element not on the list;  
if a care plan element not on the list is entered,  
determining whether the care plan element is in accordance with the payor or authority guidelines for the entered diagnosis;



if not, displaying one or more diagnoses that are in accordance with the payor or authority guidelines for the entered care plan element; and  
selecting a diagnosis that is in accordance with the patient's symptoms and that supports the entered care plan.

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